approximately 100 nm.

25. (new) A solid-state imaging device according to claim 1, wherein the entirety of the light-shielding film is approximately 100 nm.

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REMARKS

This is a full and timely response to the non-final Official Action mailed August 20, 2002. Reexamination and reconsideration in light of the above amendments and the following remarks are courteously requested.

By the foregoing amendment, claim 1 has been amended. No claims are canceled. Claims 21 to 25 are added. Thus, claims 1 to 6, and 16 to 25 are currently pending for the Examiner's consideration.

In the Office Action, the Examiner mentions that under 35 U.S.C. § 112, first paragraph, the specification must be written clearly, concisely, and in exact terms. The Examiner asserts that the specification is replete with unclear terms, and is therefore noncompliant. First, the Office Action does not indicate that the preliminary amendment filed July 31, 2001 is entered. The preliminary amendment amends the specification to conform to that of issued U.S. Patent No. 6,281,034 (parent application 09/166,901) to which this case

claims domestic priority. Second, if the Examiner is still of the opinion that the specification is in need of clarification, it is respectfully requested that the Examiner point out instances where clarification is needed.

The Examiner rejected claims 1 to 6 under 35 U.S.C. § 112, second paragraph as being indefinite. The claims have been reviewed, and the present amendment is believed to overcome the rejections. However, it is not understood where in claim 1 the word "semiconductor" is misspelled, as asserted by the Examiner.

The Examiner rejected claims 1 to 2, 5 to 6, 16, and 18 to 19 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,523,609 ("Fukusho"), or alternatively under 35 U.S.C. § 103(a) as being unpatentable over Fukusho. These rejections are respectfully traversed.

In the Action, the Examiner makes the sweeping statement that "patentability of a product by process claim is determined by the final product, regardless of how actually made." However, this statement is not true. The process steps in a product by process claim can impart patentability to the product thereby produced **if** those process steps ascribe a distinct physical or chemical feature to the product, and those ascribed physical or chemical features are not taught or suggested by the prior art.

Claims 1 and 16 recite that a light-shielding film on a

semiconductor substrate is multilayered. The first layer is deposited by sputtering or vapor deposition, and the second layer, atop the first layer, is deposited by chemical vapor deposition (CVD). The current specification clearly teaches that by forming these layers in such a manner, the first film has excellent adhesion to the underlayer, and the second film has excellent adhesion through the first film. Further, by depositing the films in the claimed manner, the films can be very thin and the second film has sufficiently adequate light-shielding properties. Further, with the second film being formed by CVD, good step coverage is obtained, and leakage of light from a step side wall or the like is prevented despite the film being very thin.

In contrast, Fukusho discloses a sensing device that includes a dual layer light shield 16, 17, but fails to indicate how the dual layer light shield is made. Therefore, there is no evidence that the light shield layers of Fukusho attains the adherence and light shielding properties of the thin, multilayered light shielding film of the present invention.

The thinness of the films in the claimed light shielding film is a unique feature of the present invention, as conventional light shielding films are unable to be adequately adhered to the underlayer without such disadvantages as smearing and inadequate light shielding. The thinness of the

films is further represented in claim 20 as filed, and new claims 21 to 25.

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. Because the Fukusho reference fails to teach or suggest the features ascribed to a multilayered film provided by the techniques in claims 1 and 16, it is respectfully requested that the rejections of claims 1 to 2, 5 to 6, 16, and 18 to 19 be withdrawn.

The Examiner rejected claims 1 to 6, and 16 to 20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,621,461 ("Higashide") in view of U.S. Patent No. 5,773,859 ("Ueno"). These rejections are respectfully traversed.

The Examiner relies upon Ueno for allegedly teaching a double layer in a light shielding layer made of tungsten. However, Ueno is not prior art under 35 U.S.C. § 103(c).

The Ueno patent is assigned to Sony Corporation ("Sony") and was so assigned when the present application was filed. Under 35 U.S.C. § 103(c) as amended in the American Inventors Protection Act of November 29, 1999, and 37 C.F.R. § 1.104(a)(5)(i), a patent can not be used as basis for a 102(e)/103(a) rejection if two requirements are met. First,

the cited patent and the present invention must be assigned to a common owner in assignments that are recorded with the U.S. Patent and Trademark Office. Second, the owner or the owner's legal representative must assert that at the time the invention claimed in the patent application was invented, the invention was assigned to the same assignee that owns the patent.

At the time the invention was made, the current inventors were under obligation to assign the invention to Sony, and did in fact assign the invention to Kansai Paint by way of the assignment recorded December 28, 1998. Consequently, the ueno patent is not prior art with respect to the present invention under 35 U.S.C. § 103(c). As no other prior art is applied against the claims together with the Higashide patent, it is respectfully requested that the rejections of the claims be withdrawn.

CONCLUSION

For the foregoing reasons, all the claims now pending in the present application are believed to be clearly patentable over the prior art of record. Accordingly, favorable reconsideration of the claims in light of the above remarks is courteously solicited. If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned

attorney at the below-listed number.

Respectfully submitted,

DATE: 20 November 2002

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Appendix

Amendments to the Claims

1. (amended) [In a] A solid-state imaging device, which comprises: [having]

a light-receiving portion formed on a semiconductor substrate; and

a light-shielding film formed so as to cover an electrode formed on said semiconductor substrate on [its] regions of said semiconductor substrate other than a region above said light-receiving portion,

wherein said solid-state imaging device [being] is formed such that said light-shielding film has a multilayer structure including a first film formed of a film deposited by sputtering or vapor deposition and a second film deposited by chemical vapor deposition.

21. (new) A solid state imaging device according to claim 1, wherein said first film has a thickness in a range of 20 to 100 nm, and said second film has a thickness in a range of about 80 nm to 200 nm so as to maintain a satisfactory light-shielding property.

22. (new) A solid-state imaging device according to claim 1, wherein the entirety of the light-shielding film is less

than 200 nm.

23. (new) A solid-state imaging device according to claim 1, wherein the entirety of the light-shielding film is less than 200 nm.

24. (new) A solid-state imaging device according to claim 1, wherein the entirety of the light-shielding film is approximately 100 nm.

25. (new) A solid-state imaging device according to claim 1, wherein the entirety of the light-shielding film is approximately 100 nm.